AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An exhaust emission control device ~~of~~for an internal combustion engine including a diesel particulate filter disposed in an exhaust passage of the internal combustion engine for trapping exhaust particulates ~~in exhaust~~, and a pressure sensor ~~for detecting~~interposed between a first pressure pipe communicating with the exhaust passage upstream of the diesel particulate filter and a second pressure pipe communicating with the exhaust passage downstream of the filter to detect a differential pressure across the diesel particulate filter to determine ~~the timing for oxidizing the~~when to oxidize particulates accumulated in the diesel particulate filter based on ~~the~~said detected differential pressure, which increases with ~~the~~accumulation of ~~the~~particulates, the device comprising:

means for estimating ~~a~~pressure sensor temperature ~~of the pressure sensor~~;

means for setting a correction factor and ~~performing a~~acquiring correction information ~~acquiring process for~~by (a) reading output from the pressure sensor and an estimated temperature by the temperature estimating means in accordance with the output from the pressure sensor when the engine is not running, (b) determining offset correction factors for removing offset errors of the pressure sensor, the offset errors being the difference between the read-out output from the pressure sensor and an output from the pressure sensor at the time when the pressure is zero, which should be constant irrespective of temperature changes, and (c) storing relationships between the offset correction factors and temperatures of the pressure sensor in a memory; and

means for reading the output from the pressure sensor and the estimated temperature by the temperature estimating means when the engine is running for measuring a differential pressure across the diesel particulate filter, and selecting one of the offset correction factors in the memory which corresponds to the estimated temperature, so as to correct the output of the pressure sensor with the selected offset correction factor.

2. (Currently Amended) ~~The~~An exhaust emission control device ~~of~~for an internal combustion engine ~~according to~~as in claim 1, wherein:

the means for setting a correction factor ~~setting means is designed such that estimated temperatures of the pressure sensor are divided into a plurality of temperature ranges, and the memory~~stores each offset correction factor~~s to match~~ in association with ~~each~~a corresponding one of plural temperature ranges.

3. (Currently Amended) ~~The~~An exhaust emission control device ~~of~~for an internal combustion engine ~~according to~~as in claim 2, wherein:

the means for setting a correction factor setting means ~~is designed so that whenever~~replaces an earlier stored offset correction factor with a new offset correction factor when one is obtained for a given temperature range by the correction ~~information~~factor acquiring process ~~the new offset correction factor replaces an old offset correction factor~~.

4. (Currently Amended) ~~The~~An exhaust emission control device ~~of~~for an internal combustion engine ~~according to~~as in claim 3, wherein:

the means for setting a correction factor ~~setting means is designed so that~~calculates a new correction factor by interpolation for one or more temperature range sandwiched between first

and second temperature ranges when (a) an offset correction factor that corresponds to ~~a~~said first temperature range is obtained by the correction information acquiring process, ~~if another~~and (b) the correction factor that corresponds to ~~a~~said second temperature range which is nearest to the first temperature range has already been previously obtained by the ~~previously completed~~correction information acquiring process~~ and if there is one or more temperature ranges between the first and second temperature ranges, then the offset correction factor of the temperature range sandwiched between the first and second temperature ranges is calculated by interpolation between the offset correction factors of the first and second temperature ranges~~.

5. (Currently Amended) ~~The~~An exhaust emission control device ~~of~~for an internal combustion engine ~~according to~~as in claim 1, wherein:

the memory also stores relationships between gain correction factors and temperatures of the pressure sensor for removing gain errors resulting from gain variations of the pressure sensor which gain is represented by the slope of sensor output as a function of pressure when the engine is running, said stored relationships including an average gain error for sensors of the same type as the differential pressure sensor, and

the ~~correction~~means for selecting also selects a gain correction factor in the memory which corresponds to the estimated temperature by the temperature estimating means~~, so as to~~ and also corrects output of the pressure sensor with the selected gain correction factor.

6. Cancelled.

7. (Currently Amended) ~~The~~An exhaust emission control device ~~of~~for an internal combustion engine ~~according to~~as in claim 1, wherein:

the pressure sensor is a semiconductor pressure sensor.

8. (New) A method for correcting measured differential pressure across a diesel particulate filter disposed in an exhaust passage of an internal combustion engine to determine when to oxidize particulates accumulated in the diesel particulate filter, said method comprising:

estimating temperature of a pressure sensor disposed to measure said differential pressure;

acquiring pressure sensor correction factor information by reading output from the pressure sensor and estimated pressure sensor temperature when the engine is not running,

determining offset correction factors for the pressure sensor, the offset errors being the difference between the output from the pressure sensor and an output from the pressure sensor at the time when the pressure is zero, which should be constant irrespective of temperature changes;

storing relationships between the offset correction factors and temperatures of the pressure sensor;

reading the output from the pressure sensor and its estimated temperature when the engine is running for measuring a differential pressure across the diesel particulate filter;

determining an offset correction factor based on said acquired information which corresponds to the estimated temperature; and

correcting the output of the pressure sensor with the determined offset correction factor.

9. (New) A method as in claim 8 wherein:

each acquired offset correction factor is stored in association with a corresponding one of plural temperature ranges.

10. (New) A method as in claim 9 wherein:

an earlier stored offset correction factor is replaced with a new offset correction factor when one is obtained for a given temperature range by the correction factor acquiring steps.

11. (New) A method as in claim 10 wherein:

a new correction factor is calculated by interpolation for one or more temperature range sandwiched between first and second temperature ranges when (a) an offset correction factor that corresponds to said first temperature range is obtained by the correction information acquiring process, and (b) another correction factor that corresponds to said second temperature range which is nearest to the first temperature range has already been previously obtained by the correction information acquiring process.

12. (New) A method as in claim 8 wherein:

relationships between gain and temperatures of the pressure sensor are also acquired for removing gain errors resulting from gain variations of the pressure sensor which gain is represented by the slope of sensor output as a function of pressure when the engine is running, said acquired relationships including an average gain error for sensors of the same type as the differential pressure sensor, and

a gain correction factor is also determined from said acquired gain data corresponding to the estimated sensor temperature also used to correct output of the pressure sensor.

13. (New) A method as in claim 8 wherein:

the pressure sensor is a semiconductor pressure sensor.